EXHIBIT

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Page 1

1   UNITED STATES DISTRICT COURT

2   NORTHERN DISTRICT OF CALIFORNIA

3   SAN JOSE DIVISION

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7   IN RE iPhone APPLICATION   ) CASE NO.:

8   LITIGATION,   ) 5:11-MD-02550-LHK

9   _____)

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12   **CONFIDENTIAL**

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16   VIDEOTAPED DEPOSITION OF JEFFREY G. BOLAS

17   LOS ANGELES, CALIFORNIA

18   WEDNESDAY, JANUARY 16, 2013

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23   REPORTED BY:

24   CHRISTY A. CANNARIATO, CSR #7954, RPR, CRR

25   JOB 57342

1   the record is clear on that.

2   Q.   BY MR. KAMBER: Is there any -- are

3   there any publications that you reviewed -- that you

4   reviewed or relied upon in the preparation of your

5   report that aren't listed?

6   A.   Listed where?

7   Q.   Or either in the report -- in the --

8   well, let me tell you, there is none.

9   Are there any publications that you

10   reviewed or relied upon in the preparation of your

11   report?

12   A.   Yes. I reviewed the UI Device

13   Programming Class; and the iOS Software Development

14   Kit; API or Application Programming Interface; and I

15   reviewed the specific methods that exist in the UI

16   Device Programming Class that allow application

17   developers to query certain properties about an iOS

18   device.

19   Q.   And where did you get those from?

20   A.   That's publicly available on the web.

21   Q.   Where on the web did you get them from?

22   A.   I think it's Apple's developer website.

23   I just did a simple search.

24   Q.   Do you have copies of those?

25   A.   No. I didn't make any copies.

1   you log in as a developer or was it one of the pages

2   that is publicly available to nondevelopers?

3   A.   It is a page that is publicly available.

4   I did not log in.

5   Q.   Are there any other publications,

6   websites, or other materials that you relied upon?

7   A.   I have an understanding of the Apple

8   privacy policy which is also publicly available.

9   Q.   Anything else?

10   A.   That's all I can think of right now.

11   Q.   Except for documents that are listed in

12   your report, did you receive any documents from

13   Apple or Gibson Dunn?

14   A.   Yes, the documents that were produced in

15   response to the subpoena.

16   Q.   Any other documents that were not -- any

17   documents that were not produced?

18   A.   Can you rephrase the question?

19   Q.   Referring to your last answer. You said

20   that they were -- I had asked if there was any other

21   documents reviewed, you said any documents reviewed

22   were produced in the report, paraphrasing, it is

23   what --

24   A.   Are you asking are there any other

25   documents I reviewed or any other documents that

1   A.   No, that's all I can think of.

2   Q.   Did you speak to any Apple employees

3   during this engagement?

4   A.   No.

5   Q.   Did you rely upon the work of any

6   individuals that is not specifically set forth in

7   the report?

8   MR. JESSEN: Objection.   Ambiguous.

9   A.   What kind of individuals are you

10 referring to? We have the team of forensic

11 examiners, and that is set forth in the report.

12   Q.   Correct.

13   A.   Our work -- yeah, I think -- I don't

14 think I would characterize any work relied upon as

15 originating from anyone other than the forensic team

16 that did the analysis in this case.

17   Q.   And aside -- and aside from the web page

18 that was listed, and the Apple privacy policy, there

19 are no other publications or printed materials upon

20 which you relied?

21   MR. JESSEN: Objection.

22   Q.   Relied or referenced, I should say.

23   A.   I mean, I believe I have already

24 answered that question, and to the best of my

25 recollection right now that's it.

1 know, the duration of the case.

2   And it is certainly true that a

3 reasonable percentage of those other cases where I

4 am not doing the direct forensic analysis but rather

5 supervising, providing guidance, and, you know, sort

6 of QC oversight on, do involve iPhones.

7   Q.   You refer to "other smaller cases." Do

8 you consider this a larger case?

9   A.   It's occupied a fair amount of my time

10 recently. Yeah.

11   Q.   Is it a significant case to you in your

12 current workload?

13   A.   I am devoting the full day today in

14 deposition, so I would answer yes.

15   Q.   Looking through paragraphs 8 through 12

16 -- I'm sorry -- 8 through 11 of your declaration, is

17 your basis for those paragraphs anything besides

18 your own personal work experience with the iPhone?

19   MR. JESSEN: Obviously feel free to take

20 your time and read those.

21   A.   With respect to paragraph 8, I have

22 already answered that that paragraph is based on my

23 personal and professional experience.

24   The same is true for paragraph 9. And

25 the same is true for paragraphs 10 and 11 with the

1   additional observation that paragraph 11 is where I

2   introduce the concept of the application programming

3   interface or the API.

4   And I would note that my review of the

5   UI device class, the publicly-available website --

6   web page that we already referenced, informed, I

7   believe was your question, my understanding.

8   Q.   Okay.   And with respect, then, to -- is

9   it accurate to state that paragraphs 11, 12, and 13

10   are based upon your own professional work experience

11   and informed by that particular web page that you

12   just cited to?

13   A.   Yes.

14   Q.   Do you know whether anyone at Apple or

15   affiliated with Apple reviewed paragraphs 8 through

16   13 or the information contained in paragraphs 8

17   through 13 to determine their accuracy?

18   A.   I have no idea.

19   Q.   Directing your attention to paragraph 15

20   of your declaration, is your understanding in that

21   paragraph based upon any information besides your

22   own personal experience and the reading of the

23   complaints in this action?

24   A.   I read the complaints in this action.   I

25   also discussed the case, as you might expect, with

1 apps they had installed.

2   Q.   Let's look at footnote 1 on page 9,

3 paragraph 25. It states, "An HTTP POST request

4 sends data as part of their request, and, by their

5 nature, would not be identified as part of static

6 analysis."

7   So POST -- POST requests were not --

8 your analysis did not and was not able to find -- or

9 let me rephrase that.

10   Is that statement correct?

11   A.   Yes, that statement is correct.

12   Q.   Are you familiar with the frequency that

13 tracking companies use that command?

14   A.   The frequency that tracking companies --

15   Q.   Companies that use the request.

16   A.   -- that use that request?

17   Q.   You're doing an analysis of information

18 being sent to third-party tracking companies. Do

19 you have an understanding as to how often such

20 information is sent to tracking companies via a POST

21 request?

22   A.   No, I'm not an expert in online

23 analytics, what you I think refer to as tracking

24 companies in this case. So I don't -- I don't think

25 I could offer any opinion on the frequency or volume

1   of such requests in general.

2   Q.   And at the end you're stating Stroz

3   Friedberg's analysis relies upon the names of

4   properties readily reflecting the meaning of the

5   values associated with them.

6   Do you have a basis for your -- do you

7   have an understanding as to whether tracking

8   companies use names of properties readily reflecting

9   the meaning of the values associated with them?

10   A.   Well, again, that's a very broad

11   question, because you are using -- we haven't even

12   defined who all of the so-called tracking companies

13   are. I understand there to be many of them.

14   Perhaps more than are specifically named in your

15   Complaint. But, you know, setting aside the

16   generality of the question.

17   I know from professional experience

18   reviewing such requests, reviewing the property

19   value pairs, as it is described in this footnote,

20   that it is quite common for properties to have names

21   that readily reflect what the -- what the value is,

22   what the specific data element is that follows in

23   the property value pair.

24   So I would say I know that from

25   reviewing such data.

1   Q.   Okay. By the way, Tracking Companies is

2   used as a defined term throughout your declaration,

3   so where you -- whether you may not have the gotten

4   the term "tracking companies" from the Complaint,

5   you are using it as a capitalized term, for

6   instance, in paragraph 25, in paragraph 26,

7   immediately preceding footnote No. 1.

8   A.   Sorry, I was responding to what I

9   understood your question to be. I thought you were

10 using the phrase in an even more general sense.

11   Q.   No, I was using it as, you know, again,

12 I'm using terms -- I'm trying to use terms which

13 usually are common between the declaration and also

14 the complaint. So "tracking companies" in this case

15 I'm using the same as the defined term as you're

16 using tracking companies.

17   A.   Which is as it is defined in the

18 Complaint.

19   Q.   Which is as it is defined in the

20 Complaint, just so the record is clear.

21   Are you aware of any instances in which

22 tracking companies used names and properties which

23 reflect -- which reflected the meaning of the values

24 associated with them?

25   A.   Yes.

1   Is there anywhere in your report that

2   you are able to state that "no evidentiary support"

3   is the same as, you know, proving the negative; that

4   no evidentiary support means that it didn't happen;

5   that there wasn't such a transmission?

6   MR. JESSEN: Object to form.

7   A.   I would want to carefully review the

8   entire declaration to see if there was even one

9   instance of language that equated the lack of

10   support -- the lack of forensic evidence in a

11   particular context as an attempt to answer a

12   specific question about historical usage and equates

13   that with a proof positive that something did not

14   occur.

15   To the best of my recollection, I do not

16   attempt to make that distinction. To the best of my

17   recollection, when we say there is no evidence

18   found, that's exactly -- it means nothing more and

19   nothing less than that. And the reader of the

20   declaration should not misinterpret the language

21   that there is no support or no forensic evidence

22   found to mean that there's proof positive that

23   something didn't occur.

24   Q.   Okay. Let's go to our friend Miss

25   Capiro. On paragraph 77, why didn't you preserve

1   Q.   How do you -- from your experience, how

2 do you know that an app is denied access to Location

3 Services until permission is affirmatively given?

4   A.   When you -- when a user uses an app on

5 an iPhone that makes a request of Location Services,

6 if Location Services is turned off for that app or

7 turned off in its entirety, the user is prompted and

8 asked whether or not the app should be enabled to

9 use Location Services. And the user has to

10 affirmatively agree to turn it back on.

11   Q.   And how do you know that if the user

12 doesn't affirmatively agree that Location Services

13 aren't still being given access to?

14   A.   That's -- that's my understanding of how

15 Location Services work and how the -- how the

16 specific settings in the operating system work.

17   Q.   Upon what do you base your belief?

18   A.   Again, upon my experience testing and

19 interacting with iOS apps.

20   Q.   What tests have you performed that

21 validate that an app is denied access to Location

22 Services until permission is affirmatively given?

23   A.   We, as part of our testing of Capiro,

24 ran a series of tests on an iPhone to see whether or

25 not -- whether the -- let me back up -- a test to

1   the specific date.

2   Q.   On how many indications have you been --

3   have you supervised a forensic engagement to

4   determine whether Location Services were turned on

5   or off on an iOS device?

6   A.   This is the first instance. This case

7   is the first instance in which that specific

8   forensic question of analyzing forensic data for

9   historical Location Services settings has been at

10 issue.

11   Q.   Going to Exhibit C and referring to --

12 which of the five -- sorry -- which of the six

13 backups include information for the period between

14 June 21st, 2010 and April 27th, 2011?

15   A.   April 27th, 2011 being the end of that

16 period, did you say?

17   Q.   Yes.

18   A.   Okay. Let me go through this.

19   The first two of the six listed backups

20 here contain services calls that are dated from the

21 period that ends April 27th, 2011.

22   Q.   What is your understanding of what the

23 column "Last Location Services Call" means?

24   A.   My understanding is that this is a

25 timestamp that is recorded in a plist associated

1   doesn't -- you know, has issues with the use of

2   iPhones, that's unusual. But, yes, she did appear

3   to switch phones over time.

4   MR. KAMBER: I'm going to go off the

5   record for a second. We've got two and-a-half

6   minutes left.

7   THE VIDEOGRAPHER: Off the record. The

8   time is 7:01.

9   (Recess.)

10   THE VIDEOGRAPHER: Back on the record.

11 The time is 7:09.

12   Q.   BY MR. KAMBER: Okay. Just about

13 wrapping up now.

14   In your submission of this declaration

15 in support of Apple's Motion for Summary Judgment,

16 are you putting yourself forward as an expert on

17 Apple's APIs?

18   A.   No, I'm putting myself forward as a

19 forensic expert with experience and expertise in

20 analyzing digital media, including data on iOS

21 devices.

22   Q.   Do you consider yourself an expert in

23 Apple's APIs and the data through which -- the data

24 that is transmitted through them?

25   A.   Do I consider myself an expert in --

1   what was the second thing?

2   Q.   Apple's APIs.

3   A.   That was the first thing.

4   Q.   And the data transmitted via those APIs

5   to third parties.

6   A.   Transmitted via -- I'm sorry, via the

7   API or --

8   Q.   I will rephrase it.

9   A.   Okay.

10   Q.   Are you an expert in whether certain

11   types of data can be procured through an Apple API?

12   A.   I don't consider myself to be an expert

13   in development of iOS -- iOS apps or the -- the use

14   by third parties of those apps.

15   I consider myself an expert in digital

16   forensic analysis, which is the basis of this

17   declaration.

18   Q.   Do you -- do you agree -- did you

19   conclude that most types of the information

20   Plaintiffs alleged cannot be procured through an

21   Apple-approved API?

22   A.   Most type --

23   Q.   Most types of information.

24   A.   Most types of information --

25   Q.   Is this statement true: Most types of